

WHAT IS CLAIMED IS:

Spec 2
1 A data transfer method performed at a proxy server, the method comprising:
intercepting a data request from a client computer that is directed to a target server;
encrypting profile information;
augmenting the data request by adding the encrypted profile information to the data
request; and
sending the augmented data request to the target server.

2. The method of claim 1 further comprising:
receiving a reference token from the target server;
receiving a second data request from the client computer that is directed to the target
server;
augmenting the second data request by adding the reference token to the second data
request; and
sending the augmented second data request to the target server.
3. The method of claim 2 wherein the reference token comprises a reference to the profile
information sent to the target server.
4. The method of claim 1 further comprising retrieving the profile information from a
database based on an identity of a user.
5. The method of claim 4 further comprising using the Internet Engineering Task Force
IDENT protocol to determine the identity of the user.
6. The method of claim 1 wherein encrypting profile information comprises determining a
session key and using the session key as an encryption key.

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- 1 7. The method of claim 6 further comprising encrypting the session key, and wherein
2 augmenting the data request further comprises adding the encrypted session key to the
3 data request.
- 1 8. The method of claim 7 wherein using the session key to encrypt the profile information
2 comprises using the session key as a symmetric encryption algorithm encryption key, and
3 wherein encrypting the session key comprises encrypting using a public key encryption
4 algorithm and a public key associated with the target server.
- 1 9. The method of claim 8 further comprising obtaining the public key from the target server.
- 1 10. The method of claim 9 wherein obtaining the public key from the target server comprises
2 sending a request to the target server to retrieve the public key.
- 1 11. The method of claim 1 wherein the data request comprises a hypertext transfer protocol
2 (HTTP) request comprising a HTTP field, the target server comprises a HTTP server, and
3 the client computer comprises a web browser application.
- 1 12. The method of claim 1 wherein the profile information comprises information associated
2 with the client computer.
- 1 13. A data transfer method performed at an information server, the method comprising:
2 receiving a data request from a proxy server;
3 extracting profile information added to the data request by the proxy server;
4 using the extracted profile information to generate a response; and
5 sending the response to the proxy server.

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- 1 14. The method of claim 13 wherein using the extracted profile information to generate a
2 response comprises providing the extracted profile information to a web application and
3 generating the response by processing the web application.
- 1 15. The method of claim 14 wherein providing the extracted profile information comprises
2 setting HTTP environment variables at a web server and wherein the web application
3 comprises a common gateway interface script.
- 1 16. The method of claim 13 further comprising storing the extracted profile information at
2 the information server and associating a reference token with the stored profile
3 information, and wherein the response further comprises the reference token.
- 1 17. The method of claim 16 further comprising:
2 receiving from the proxy server a second data request comprising the reference token;
3 extracting the reference token from the second data request;
4 accessing the stored profile information based on the reference token; and
5 using the stored profile information to generate a response to the second data request.
- 1 18. The method of claim 13 wherein extracting the profile information comprises decrypting
2 the profile information.
- 1 19. The method of claim 18 wherein the data request further comprises a session key added
2 to the data request by the proxy server and wherein decrypting the profile information
3 comprises using the session key to decrypt the profile information.
- 1 20. The method of claim 19 further comprising decrypting the session key.

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1 21. The method of claim 20 wherein decrypting the session key comprises decrypting using a
2 public key algorithm and a private key of the information server, and wherein decrypting
3 using the session key comprises decrypting using a symmetric decryption algorithm.

1 22. A computer program residing on a computer-readable medium, comprising instructions
2 for causing a computer to:
3 intercept a data request from a client computer that is directed to a target server;
4 encrypt profile information;
5 augment the data request by adding the encrypted profile information to the data request;
6 and
7 send the augmented data request to the target server.

1 23. The program residing on the computer-readable medium of claim 22 further comprising
2 instructions for causing a computer to:
3 receive a reference token from the target server;
4 receive a second data request from the client computer that is directed to the target server;
5 augment the second data request by adding the reference token to the second data request;
6 and
7 send the augmented second data request to the target server.

1 24. The program residing on the computer-readable medium of claim 22 wherein:
2 the instructions for causing the computer to encrypt profile information comprise
3 instructions to encrypt the profile information using a session key and a symmetric
4 encryption algorithm;
5 the program further comprises instructions to encrypt the session key using a public key
6 encryption algorithm; and
7 the instructions to augment the data request further comprise instructions to add the
8 encrypted session key to the data request.

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- 1 25. A computer program residing on a computer-readable medium, comprising instructions
2 for causing a computer to:
3 receive a data request comprising encrypted profile information added to the data request
4 by a proxy server;
5 extract the profile information added by the proxy server;
6 use the extracted profile information to generate a response; and
send the response to the proxy server.
- 1 26. The program residing on the computer-readable medium of claim 25 further comprising
2 instructions for causing a computer to:
3 store the extracted profile information;
4 associate a reference token with the stored profile information;
5 include the reference token in the response to the proxy server;
6 receive from the proxy server a second data request comprising the reference token;
7 extract the reference token;
8 access the stored profile information based on the presence of the reference token in the
9 second data request; and
use the accessed profile information to generate a response to the second data request.
- 1 27. The program residing on the computer-readable medium of claim 25 wherein:
2 the data request further comprises encrypted session key information;
3 the program further comprises instructions for causing the computer to decrypt the
4 session key information; and
5 the instructions to extract the profile information comprises instructions for causing the
6 computer to decrypt the profile information using the decrypted session key.
- 1 28. A proxy server comprising:
2 a database comprising records storing user profile information;

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3 a network interface operatively coupled to a network to exchange data with a client
4 computer and with a target server; and
5 a processor operatively coupled to the network interface, the database, and a memory
6 comprising executable instructions for causing the processor to intercept a data
7 request that is directed to a target server, retrieve a record from the database, encrypt
8 profile information in the record, augment the data request by adding the encrypted
9 profile information, and send the augmented data request to the target server

1 29. The proxy server of claim 28 wherein the memory further comprises instructions for
2 causing the processor to receive a reference token from the target server, receive a second
3 data request from the client computer that is directed to the target server, augment the
4 second data request by adding the reference token to the second data request, and send
5 the augmented second data request to the target server.

1 30. The proxy server of claim 28 wherein:
2 the instructions for causing the computer to encrypt the profile information comprise
3 instructions to encrypt the profile information using a session key and a symmetric
4 encryption algorithm;
5 the memory further comprises instructions to encrypt the session key using a public key
6 encryption algorithm; and
7 the instructions to augment the data request further comprise instructions to add the
8 encrypted session key to the data request.

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1 31. An information server comprising:
2 a network interface operatively coupling the information server to a proxy server; and
3 a processor operatively coupled to the network interface and to a memory comprising
4 executable instructions for causing the processor to receive a data request from the
5 proxy server, decrypt user profile information added to the data request by the target
6 server; and use the decrypted user profile information to generate a response to the
7 data request.

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1 32. The server of claim 31 wherein the memory further comprise instructions to decrypt an
2 encrypted session key added to the data request by the proxy server, and the instructions
3 to decrypt user profile information further comprise instructions to decrypt the user
4 profile information using the decrypted session key.

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